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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Chang-Hyung Cho

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EXAMINER

ZHAO, DAQUAN

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/024,716	CHO, CHANG-HYUNG	
	Examiner	Art Unit	
	Daquan Zhao	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/21/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/10/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 8, 9 11, 13, 16-22, 26, 27, 29 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Corey et al (U.S. 5,703,655).

For claim 1, Corey et al disclose a method of recording an audio/video (AN) signal, comprising:

- Selecting a category item for the A/V signal (e.g. abstract, column 10, lines 5-18);
- Storing category information about the A/V signal, the category information including the category item (e.g. Figure 1, closed caption storage, 72, column 4, lines 31-34); and
- Recording the A/V signal to a storage medium (e.g. Figure 1, Video/Audio storage, 40, column 3, lines 52-57).

For claims 2 and 20, Corey et al disclose the category information (close caption data) is stored in a memory (closed caption storage 72, see claim 1 above) provided separately from the storage medium (Video/Audio storage 40, see claim 1 above).

For claims 3 and 21, Corey et al specify the category information is stored in the storage medium together with the A/V signal (column 4, line 36-38).

For claim 4, Corey et al disclose the category item selecting, comprises:

- Extracting feature information in which a category of the AN signal is seized (e.g. abstract, column 4, lines 1-4);
- Comparing the feature information with a predetermined category list (e.g. column 10, lines 5-18, predetermined category list: movies, sports, entertainment, national news, and local news); and
- Selecting the category item for the A/V signal based on a result of the comparison (e.g. column 10, lines 5-18).

For claim 11, Corey et al disclose an apparatus for recording an audio/video (A/V) signal, comprising:

- A first storage medium storing one or more A/V signals (e.g. Figure 1, Video/Audio storage, 40, column 3, line 52-57);
- A demultiplexing processor demultiplexing one of the input A/V signals, extracting feature information in which a category of the input A/V signal is seized, and transmitting the input A/V signal to the first storage medium (e.g. Abstract, figure 1, Receiver Tuner 24, column 3, line 52-67, and column 4, lines 1-12);

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- A controller selecting and storing a category item for the input A/V signal based on the feature information provided from the demultiplexing processor and controlling the demultiplexing processor to record the input A/V signal to the first storage medium (e.g. figure 1, control module 60, video/audio storage 40, column 4, lines 13-38); and
- A second storage medium storing category information including the category item (e.g. figure 1, closed caption storage, 72)

For claim 13, Corey et al disclose the feature information extracted by the demultiplexing processor is system information (SI) contained in the input A/V signal, or additional information received together with the input A/V signal (e.g. Abstract, figure 1, Receiver Tuner 24, column 4, lines 1-12, additional information: closed caption data).

For claim 16, Corey et al disclose the additional information is used when the input A/V signal is an analog signal (column 3, line 53-55, signal coming in is digitized. Therefore, the A/V signal must be analog signal).

For claim 17, Corey et al disclose the additional information received together with the input signal, is received through the same channel or a different channel than the input A/V signal (Figure 1, baseband video 32, 48, column 3, lines 2-54, column 5, lines 1-4).

For claim 18, Corey et al disclose an apparatus for searching a first storage medium, which stores one or more audio/video (A/V) signals, for one of the A/V signals, comprising:

- An information input unit inputting information pertaining to a request of searching for the A/V signal stored in the first storage medium (Figure 1, user input device, 76, e.g. column 4, lines 39-48);
- A second storage medium storing category information including a category list of the one or more A/V signals stored in the first storage medium (e.g. figure 1, closed caption storage 72, column 2, line 10-20);
- A display unit displaying the category list (e.g. Figure 1, monitor, 84, Figure 5A, programming Category, 520); and
- A controller reading the category list from the second storage medium and controlling the category list to be displayed on the display unit when the search request information is received from the information input unit, and when the A/V signal falling under a particular category item is selected from the displayed category list through the information input unit, reading the selected A/V signal from the first storage medium (e.g. figure 5B, step 524, and step

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532, column 7, lines 41-49, control module 60 and column 10 lines 13-18, and lines 65-67).

For claim 19, Corey et al disclose an apparatus for recording an audio/video (A/V) signal to a storage medium, comprising:

- A selecting unit selecting a category item for the A/V signal (e.g. figure 1, Receiver Tuner 24);
- A storing unit storing category information about the A/V signal, the category information including the category item (e.g. figure 1, closed caption storage); and
- A recording unit recording the A/V signal to the storage medium (e.g. figure 1, video/audio storage, 40).

For claim 22, Corey et al disclose a selective unit comprises: an extracting unit extracting feature information in which a category of the A/V signal is seized (e.g. Abstract, figure 1, Receiver Tuner 24, column 3, line 52-67, and column 4, lines 1-12); and a comparing unit comparing the feature information with a predetermined category list, wherein the selecting unit selects the category item for the A/V signal based on a result of the comparison (Figure 12A and 12B, column 6, line 54-67, "the name of the video program", and column 10, lines 5-18).

For claims 8 and 26, Corey et al disclose a method of searching a storage medium, which stores one or more audio/video (A/V) signals, for one of the A/V signals, comprising:

- Displaying, when a search for the A/V signal is requested, a category list of the one or more A/V signals stored in the storage medium (e.g. figure 5A, step 520, column 9, lines 53-55, and column 10, lines 11-28);
- Displaying, when a category item to be searched for is selected from the displayed category list, a list of the A/V signals falling under the category item (e.g. figure 5B, step 524, column 10, lines 11-28); and
- Reading, when the A/V signal is selected from the list of A/V signals, the selected A/V signal from the storage medium and displaying the selected A/V signal (e.g. figure 5B, step 532, column 10, lines 65-67).

For claims 9 and 27, Corey et al disclose a method of searching a storage medium, which stores one or more audio/video (A/V) signals, for one of the A/V signals, comprising:

- Displaying, when a search for the A/V signal is requested, a category item for at least one of the A/V signals stored in the storage medium and a list of at least one of the A/V signals falling

under the category item (e.g. figure 5A, step 520, figure 5B, step 524, column 10, lines 11-28); and

- Searching, when the A/V signal to be searched for is selected from the displayed category item and A/V signal list, the storage medium for the selected A/V signal (column 4, lines 39-48 and column 10, lines 11-18).

For claims 29 and 31, Corey et al disclose a method and an apparatus comprising:

- Extracting a category item from an audio/video (A/V) signal to be recorded to a storage medium, storing the extracted category item (e.g. Abstract, figure 1, Receiver Tuner 24, closed Caption Storage 72, column 3, line 52-67, and column 4, lines 1-12); and
- Searching for the A/V signal using the category item (e.g. figure 2, column 7, line 41-45).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 10, 12, 23, 28, 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corey et al (U.S. 5,703,655) as applied to claims 1-4, 8, 9, 11, 13, 16-22, 26, 27, 29 and 31 above, further in view of Yogeshwar et al (U.S. 2004/0096110 A1).

Claim 5 recites determining a compression ration for the A/V signal according to the category item selected for the A/V signal, and recording the A/V signal, which is compressed at the compression ratio, to the storage medium.

Claim 12 is drawn to the apparatus of storing the compressed A/V signal. The controller determines the compression ration for the input A/V signal according to the category item, and the demultiplexing processor compresses the A/V signal according to the compression ratio and transmits the compressed A/V signal to the first storage medium.

For claims 5 and 12, Corey et al disclose a method for storing the compressed A/V signal (e.g. figure 1 compression/decompression module 36, and video/ audio storage 40, and column 3, lines 52-67). However, Corey et al fail to disclose compression ration for the compressed signal can be vary according to the category item selected for the A/V signal. Yogeshwar et al disclose a method for storing the

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compressed A/V signal can have different compression ratio according to the formats of the A/V signal (column 2, paragraph [0020], column 3, paragraph [0023]).

Claims 23, 30 and 32 encompass the same scope of claims 5 and 12, which is determine the compression ratio for the input A/V signal and store the compressed A/V signal to a storage medium.

Corey et al disclose the a compression/decompression module to compress the input A/V signal and transmit the compressed A/V signal to the first storage medium according to the control information from the controller (column 4, line22-27). However, Corey et al fail to disclose the input A/V signal can be compressed using different compression ratio. Yogeshwar et al disclose different encoders (compressor) to compressed the input A/V signal (column 2, paragraph [0020], page 5, paragraph [0060], [0061], [0062], [0063], [0064], [0065], [0066], [0067], and [0068]).

It would have been obvious for one ordinary skill in the art at the time the invention was made to modify compression module disclosed by Corey et al with the compression encoder disclosed by Yogeshwar et al for the same reason disclosed by Yogeshwar, which is to use the storage space efficiently (Yogeshwar, column 2, paragraph [0025]).

Claims 10 and 28 are further limited by the search is requested through a graphic user interface. Corey et al also disclose a monitor for displaying a query satisfying video segment retrieved (column 4, lines 43-47). However, Corey et al fail to specify a graphic user interface. Yogeshwar et al disclose a Graphic user interface for searching

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(figure 3, preview module 322, search and retrieval module 315, column 10, paragraph [0140] and column 12, paragraph [0163]). It would have been obvious for one ordinary skill in the art at the time the invention was made to combine the search method disclosed by Corey et al with the graphic user interface disclosed by Yogeshwar et al for the same reason disclosed by Yogeshwar et al, which is to search, retrieved, and delivered files to the end-user in any of the wide range of user specified formats (Yogeshwar et al, column 3, paragraph [0035]).

Claims 6, 7, 24 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Corey et al (US. 5,703,655), as applied to claims 1-4, 8, 9 11, 13, 16-22, 26, 27, 29 and 31 above, further in view of Jain et al (U.S. 6,360,234).

Claims 6, 7, 24 and 25 are drawn a method and apparatus to allow user to select and add category item for the audio/video (A/V) signal. Corey et al disclose the A/V signal can be categorized into different categories (column 10, lines 5-18). However, Corey et al fail to disclose any user interaction for adding and categorizing the A/V signal. Jain et al teach the user interaction for adding and categorizing the A/V signal (e.g. abstract, column 6, line 48-67). It would be beneficial for user to define and add category for the A/V signal, so user would have known the category of the A/V signal well. Therefore, it would have been obvious for one ordinary skill in the art at the time the invention was made to modify teaching of Corey et al with the teaching of Jain et al to assist user quickly and efficiently retrieve the video in the storage medium.

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Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corey et al (US 5,703,655), as applied to claims 1-4, 8, 9 11, 13, 16-22, 26, 27, 29 and 31 above, and further in view of Thomas et al (US 6,847,395 B2).


Claims 14 and 15 are drawn to the description of system information (SI), wherein the SI is used when the A/V signal is a digital signal and the SI comprises extended text table information, extended channel name descriptor information, and network text table information provided from a Program and System Information Protocol (PSIP) or Out-Of-Band System Information (OOBSI).

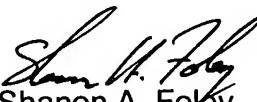
Corey et al fail to disclose the System information for digital broadcast. Thomas et al disclose system information (SI), wherein the SI is used when the A/V signal is a digital signal (e.g. abstract), and the SI comprises extended text table information, extended channel name descriptor information, and network text table information provided from a Program and System Information Protocol (PSIP) or Out-Of-Band System Information (OOBSI) (e.g. column 6, lines 57-67, column 7, lines 1-6, network Information Table, Extended Text Table, and column 17, line 22-39, Virtual Channel Table). It would have been obvious for one ordinary skill in the art at the time the invention was made to use the system information disclosed by Thomas et al in the system disclosed by Corey et al for the same reasons disclosed by Thomas et al, which are allowing users to quickly navigate through the data (Thomas et al, column 6, lines 63-66), giving a good deal of descriptive information about the transport stream, and giving the start time, duration, title, content advisory rating about the A/V signal (Thomas et al, column 17, line 26).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571)270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shanon Foley can be reached on (571) 272-0898. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Daquan Zhao


Shanon A. Foley

Supervisory Patent Examiner